

TOOL USE INSTRUCTION

RIVIAN

TOOL NUMBER TSN01516-300-A

TITLE BALL JOINT SEPARATOR

REV - DATE REV A - 02/19/2025

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TOOL FUNCTION

THIS PRESS SEPARATES THE UPPER CONTROL ARM BALL JOINT FROM THE STEERING KNUCKLE ON R1 GEN1, R1 GEN2, AND EDV FRONT SUSPENSION.



OVERVIEW

SPECIFICATIONS

Weight: 4.0 LBS

LABOR CODES

1810- FRONT SUSPENSION
1010- STEERING RACK

OTHER TOOLS REQUIRED

19MM WRENCH OR SOCKET



COMPONENT GUIDE

ITEM	DESCRIPTION
1	BALL JOINT SEPARATOR BODY
2	FORCING SCREW
3	FORCING SCREW CUP



**WARNING**

Do not perform procedure if tool is damaged or missing parts. Consult the Rivian Service Tool Catalog for replacement components.

Failure to follow guidelines outlined in this document could result in injury and/or property damage.

SAFETY GUIDELINES

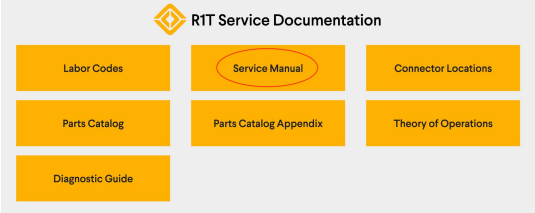
1	CAUTION Risk of <ul style="list-style-type: none">• Damage to vehicle or property when used incorrectly	
2	WARNING Risk of minor injury when not using proper PPE such as: <ul style="list-style-type: none">• Pinch or crushing of fingers• Eye injury	
3	DANGER Risk of major injury due to components under pressure such as: <ul style="list-style-type: none">• Crushing / maiming	



Always wear proper PPE when working on vehicles and using specialized tools and equipment



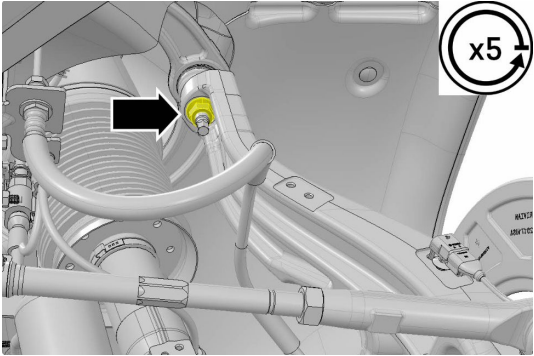

TSN01516-300-A Ball Joint Separator can be used on:

- GEN 1 R1(T/S)
- GEN 1 R1 (T/S) with retrofit GEN 2 subframe/knuckle
- GEN 2 R1 (T/S)
- EDV 500 and 700

1	Refer to the service manual for service procedure(s) on the component(s) being removed as well as required torque specs.	
2	Wear required PPE to protect against any flying objects under tension	
3	Have vehicle properly supported when using this tool (approved 2-post lift/ approved Jack stands)	
4	Inspect the ball joint separator tool for any damage prior to use..	


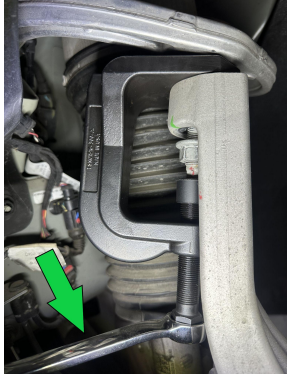
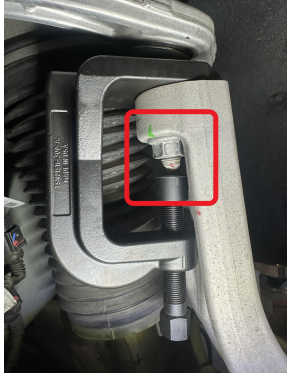



TOOL USE INSTRUCTION

1	<p>Turn the knuckle of the vehicle in the direction that will give you the most access to install and set the tool.</p> <p>EX: To work on the right side upper control arm, turn the knuckle assembly all the way to the right to gain the most access.</p>	
2	<p>Ensure that the stud end of the ball joint has a clean and uniform surface to interface with the tool. Remove excess dirt/debris with a metal bush. A clean and uniform surface can help prevent the tool from slipping off the ball joint during use.</p>	
3	<p>Loosen the upper control arm fastener to the knuckle 5 turns but do not fully remove the nut.</p>	
4	<p>Back out the threaded portion of the ball joint separator so the opening is wide enough to fit the cap over the ball joint stud.</p>	



TOOL USE INSTRUCTION

5	<p>Hand tighten the tool on the ball joint.</p> <p>1) The top of the tool jaw is flat against the top of the knuckle</p> <p>2) The threaded on cap is securely located over the stud</p>	
6	<p>Use a 19mm wrench/socket to tighten the hex end of the threaded rod. This will start to apply pressure on the Ball joint end to “pop” it off.</p> <p>DO NOT USE AN IMPACT TOOL</p>	
7	<p>The Ball joint/Tie rod will “pop” when it is released from the knuckle.</p> <p>The tool will become loose on the knuckle but contained due to the groove in the cap.</p> <p>(Notice the gap between the nut and the knuckle is closed)</p>	
8	<p>Back out threads on Ball Joint Separator Tool and slide tool off the knuckle assembly.</p> <p>Ball Joint/Tie rod is now free and ready to disassemble.</p>	



BASIC MAINTENANCE

TASK	FREQUENCY
Grease threads on adjustment rod	As Often as Necessary
Inspect rod end cap for damage	Prior to Use of the Tool
Return to storage location	After Each Use

TROUBLESHOOTING GUIDE

PROBLEM	SOLUTION
Threaded rod is hard to adjust	<ul style="list-style-type: none"> Inspect threads for damage Grease threads Replace tool if necessary
Ball Joint separator does not center in the tierod	<ul style="list-style-type: none"> Mounting to knuckle is straight and even with maximum contact. Inspect mounting U-fork for bends or damage
The cap at the end of the adjustment rod is hard remove or is unable to be removed	<ul style="list-style-type: none"> Hold hex end with 19mm wrench and try to remove the cap with adjustable pliers. Inspect threads for damage.
Bottom mounting U-fork is bent and cannot mount flat onto knuckle	<ul style="list-style-type: none"> Replace tool





DANGER

Risk of major injury such as

- fire
- chemical or poison
- crushing / maiming
- death



WARNING

Risk of minor injury



CAUTION

Risk of

- damage to vehicle or property
- data disruption
- voiding warranty

REVISION LOG

REV	DATE	CHANGE DESCRIPTION
A	02/19/2025	Initial release

